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| APPLICATION NO.                 | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.     | CONFIRMATION NO.        |  |
|---------------------------------|-------------|----------------------|-------------------------|-------------------------|--|
| 10/685,076                      | 10/13/2003  | KianKeong Ooi        | STL11367                | 4341                    |  |
| 7590 12/05/2005                 |             |                      | EXAM                    | EXAMINER                |  |
| David K. Lucente                |             |                      | MERCEDES,               | MERCEDES, DISMERY E     |  |
| Seagate Techno                  |             | ART UNIT             | PAPER NUMBER            |                         |  |
| Intellectual Property - COL2LGL |             |                      | 1                       | PAPER NUMBER            |  |
| 389 Disc Drive                  |             |                      | 2651                    | 2651                    |  |
| Longmont, CO                    | 80503       |                      | DATE MAILED: 12/05/2005 | DATE MAILED: 12/05/2005 |  |

Please find below and/or attached an Office communication concerning this application or proceeding.

|  |   | Application No.        | Applicant(s) |  |  |  |  |
|--|---|------------------------|--------------|--|--|--|--|
| Office Action Summary  |   | 10/685,076             | OOI ET AL.   |  |  |  |  |
|  |   | Examiner               | Art Unit     |  |  |  |  |
|  |   | Dismery E. Mercedes    | 2651         |  |  |  |  |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address<br>Period for Reply  |   |                        |              |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). |   |                        |              |  |  |  |  |
| Status   |   |                        |              |  |  |  |  |
| 1) 🖂   | Responsive to communication(s) filed on 22.5  | September 2005.        |              |  |  |  |  |
| 2a) □  |   | s action is non-final. |              |  |  |  |  |
| 3)   |   |                        |              |  |  |  |  |
| ,—   | closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.     |                        |              |  |  |  |  |
| Disposition of Claims  |   |                        |              |  |  |  |  |
| 4) 🖂   | )⊠ Claim(s) <u>1-13 and 15-25</u> is/are pending in the application.                                  |                        |              |  |  |  |  |
| ,—   | 4a) Of the above claim(s) <u>14</u> is/are withdrawn from consideration.                              |                        |              |  |  |  |  |
| 5)   | Claim(s) is/are allowed.  |                        |              |  |  |  |  |
| 6)⊠  | ⊠ Claim(s) <u>1,3-5,10,13,15,18,21,22,25</u> is/are rejected.   |                        |              |  |  |  |  |
|  |   |                        |              |  |  |  |  |
| ·  | <u> </u>  |                        |              |  |  |  |  |
| Application Papers   |   |                        |              |  |  |  |  |
| 9) The specification is objected to by the Examiner.   |   |                        |              |  |  |  |  |
| 10)⊠ The drawing(s) filed on <u>13 October 2003</u> is/are: a)⊠ accepted or b)□ objected to by the Examiner.   |   |                        |              |  |  |  |  |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  |   |                        |              |  |  |  |  |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).   |   |                        |              |  |  |  |  |
| 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.   |   |                        |              |  |  |  |  |
| Priority under 35 U.S.C. § 119   |   |                        |              |  |  |  |  |
| 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  |   |                        |              |  |  |  |  |
| a)   | ☐ All b)☐ Some * c)☐ None of:   |                        |              |  |  |  |  |
|  | 1. Certified copies of the priority documents have been received.                                     |                        |              |  |  |  |  |
|  | 2. Certified copies of the priority documents have been received in Application No                    |                        |              |  |  |  |  |
|  | 3. Copies of the certified copies of the priority documents have been received in this National Stage |                        |              |  |  |  |  |
|  | application from the International Bureau (PCT Rule 17.2(a)).   |                        |              |  |  |  |  |
| * See the attached detailed Office action for a list of the certified copies not received.   |   |                        |              |  |  |  |  |
| _  |   |                        |              |  |  |  |  |
| Attachment(s)  |   |                        |              |  |  |  |  |
| 1) Notice of References Cited (PTO-892)  4) Interview Summary (PTO-413)  Paper No(s)/Mail Date   |   |                        |              |  |  |  |  |
| 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  5) Notice of Informal Patent Application (PTO-152)   |   |                        |              |  |  |  |  |
| Paper No(s)/Mail Date 6)   |   |                        |              |  |  |  |  |

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#### **DETAILED ACTION**

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## Response to Arguments

1. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

2. Applicant's arguments see page 8-9 of Remarks, filed 9/22/05, with respect to claim 2 have been fully considered and are persuasive. The 35 USC 112 1<sup>st</sup> paragraph rejection of claim 2 and 103(a) rejection of claim 12 have been withdrawn.

3.

## Claim Rejections - 35 USC § 103

- 4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 5. Claims 1,3-5,10,13,15,18,21,22 rejected under 35 U.S.C. 103(a) as being unpatentable over Greenberg et al. (US 6,104,558) in view of Lapstun et al. (US 2004/0148558 A1).

As to Claim 1, Greenberg et al. discloses a method comprising a step (a) of determining a location within a cycle by reading a portion of a cyclic bit sequence (as depicted in Figs. 2 & 4, "210"), the bit sequence containing several interspersed bit-group sets (as depicted in Fig.4, "402"). Although Greenberg discloses that each contain a plurality of series that each consist of several consecutively-placed bit-groups (as depicted in Fig.5), he fails to particularly disclose consecutively-placed identical bit-groups. However, Lapstun et al. discloses such (as depicted in Figs.1-2). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention,

to modify Greenberg et al. with the above teachings by Lapstun et al., the motivation being to provide a method for determining an offset with respect to a sequence (abstract).

As to Claim 3, Greenberg et al. further discloses of accessing a sector having a sector number, the sector number being the determined location within the cycle (as depicted in Fig.4).

As to Claim 4, Greenberg et al. further discloses of writing each of the bit-groups as a mutually adjacent plurality of bits within a respective servo field (as depicted in Fig.5).

As to Claim 5, Greenberg et al. further discloses selecting each of the sets so that each of the bit-groups in the set uniquely identifies the set (col.5, lines 59-61).

As to Claim, 10, Greenberg et al. further discloses writing each of the bit-groups within a few nominal bit-lengths of a respective track identifier (as depicted in Fig.5).

As to Claim 13, Greenberg et al. further discloses detecting a plurality of inter-set transitions in the read portion of the bit sequence (as depicted in Fig.4, "servo burst").

As to Claim 15,18,21,22,25 are apparatus claims drawn to claims 1, 3 & 5 and are therefore rejected for similar reasons as set forth in the rejection of claims 1, 3 & 5, supra.

### Allowable Subject Matter

6. Claims 2,6-9,11-12,16-17,19-20,23-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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#### Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Ramler et al. (US 2003/0161067 A1); Codillian et al. (SU 6,934,114 B1); Blaum et al. (US 6,885,321 B1); Cox et al. (US 5,946,328).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dismery E. Mercedes whose telephone number is 571-272-7558. The examiner can normally be reached on Monday - Friday, from 9:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on 571-272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dismery E Mercedes Examiner

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DM

DAVID HUDSPETH SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 2600

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